SYSTEM FOR ACCESSING MULTIMEDIA MAILBOXES AND MESSAGES OVER THE INTERNET AND VIA TELEPHONE

REFERENCE TO MICROFICHE APPENDIX

A microfiche appendix having 5 microfiche and 490 frames is included herewith that includes source code in the C++/HTML languages.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention is directed to a system for accessing stored messages over a network and, more particularly, is directed to a system for providing unified access to stored messages, such as multimedia mail messages, in a unified multimedia mailbox through multiple access pathways such as over a telephone network using a telephone and over the Internet using a browser.

2. Description of the Related Art

Communication systems currently exist that allow different types of messages, such as voice mail messages and facsimile messages, to be stored for later retrieval by a subscriber to such systems. These types of systems are described in U.S. Pat. Nos. 5,029,199; 5,193,110; 5,260,990; 5,263,080; 5,475,748; 5,493,607; 5,524,139; 5,519,766 and 5,008,926, all incorporated by reference herein. These systems allow a caller or sender to leave a message, such as a voice mail message, for a subscriber whenever the subscriber is not available. When a voice mail message is to be retrieved the subscriber typically connects with the system over a conventional telephone line via a telephone call and plays the message by using the touchtones produced by the telephone to control playback, as well as other functions. In these systems the access by the subscriber is typically only through a telephone line connection. Today, there is a need to allow access to such systems through other means such as the Internet or Intranet.

Several different types of messaging systems, such as voice mail and e-mail, are also available to users. Users of the variety of today's messaging systems typically have to use several different systems and/or terminals to get their messages. A typical business user may have several voice mailboxes, several e-mail mailboxes, and perhaps some mailbox-like facsimile services. Each of these mailboxes requires separate operations and different types of terminals (DTMF telephone for voice mail, personal computer (PC) for e-mail access, facsimile machine/PC for facsimile messages). The mailboxes have different names (addresses) and cannot usually interwork. Notification mechanisms are either non-existent, or tied to one of the mailboxes. What is needed is a mailbox system that integrates all of these message types and access methods.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a system that allows a subscriber to access stored messages over not only a telephone network but also over a network such as the Internet or an intranet.

It is an additional object of the present invention to provide a system that unifies message storage allowing different types of messages or electronic communications such as voicemail, facsimile, e-mail and video mail to be stored on a single system in a single unified multimedia mailbox, and accessed via different pathways, such as via a telephone network or the Internet/Intranet.

It is an object of the present invention to provide a system that will allow multimedia messaging via a multimedia mail box.

It is another object of the present invention to provide a system that is easy to use and which uses access tools that are familiar to telephone and Internet users.

It is a further object of the present invention to provide a simple visual interface to a message storage system that simplifies the tasks associated with message access and administration.

It is also an object of the present invention to provide a platform that allows services for a variety of message types such as voice mail, video mail and facsimile mail, as well as other network services such as Internet and intranet services.

It is another object of the present invention to provide a system architecture that is easily scaleable, has a high availability and which provides a fast response.

It is an object of the present invention to provide a standards based system that will support mailbox access to a multimedia mailbox using conventional web browser software.

It is another object of the present invention to provide a system in which the message service provider does not need to supply the user with any client application software.

It is a further object of the present invention to provide message waiting/urgent notifiers when new or urgent messages are deposited in the mailbox or the message status changes by a simultaneous different connection into the mailbox such as when a mailbox is accessed by computer and while the computer is logged into the mailbox an access via a telephone interface deletes a message.

The above objects can be attained by a system that allows a subscriber to access stored messages, such as voicemail messages, facsimile messages, e-mail messages and video messages, that are stored in a unified multimedia mailbox not only through a public switched telephone network using a telephone but also over a data network, such as the Internet or an intranet. The system provides voicemail access over the telephone network, indicating message number, etc. with the ability to play messages to the telephone user. For text type messages, such as facsimile and e-mail, the system converts the text into speech and plays the speech to the telephone user. The system allows a personal computer user to obtain the data network access using an Internet browser. The browser is used to access information about the messages stored and is used to download and play the messages via data streaming in the case of a voice or video messages or view the messages in the case of text type messages, such as facsimile and e-mail. The user can also perform the other typical messaging functions over the data network connection that are provided for telephone access, such as saving and deleting messages, group list administration and other administration tasks.

These together with other objects and advantages which will be subsequently apparent, reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** illustrates a virtual unified system unified by the actions of a personal computer **60**;

FIG. **2** depicts a unified virtual system unified by a director **80**;